

In the Claims. This Listing of Claims replaces all prior versions and listings of Claims in the application.

1 1. (Currently Amended) A method for identifying an unknown
2 print medium, the method comprising:
3 transporting a print medium ~~from a print media supply~~ along a paper path
4 ~~and over an apparatus structure positioned in the paper path,~~ of a hard copy
5 apparatus structure including a lower paper guide including a reflective element
6 and a non-reflective element, the lower paper guide positioned subjacently to a
7 transmissive sensor;
8 beaming transmissive light through the print medium;
9 impinging the transmissive light onto the reflective element;
10 impinging the transmissive light onto the non-reflective element;
11 sensing a reflected light from the reflective element and the non-reflective
12 element;
13 recording data representative of light reflection and light absorption; and
14 comparing recorded data from said recording to predetermined data
15 representative of a known print medium thickness and a known print medium
16 transmissivity.

1 2. (Previously Presented) The method as set forth in claim 1
2 wherein the step of recording data representative of light reflection and light
3 absorption further comprises:
4 recording transmissive light levels of the print medium over a lightwave
5 reflective element, and
6 recording transmissive light levels of the print medium over a lightwave
7 absorptive element.

1 3. (Original) The method as set forth in claim 1 further comprising:
2 when no match between said recorded data and said predetermined data
3 is obtained, storing said recorded data as a new print medium data file.

1 4. (Original) The method as set forth in claim 1 embodied in
2 computer code.

1 5. (Currently Amended) A method for characterizing print media
2 comprising:

3 transporting a print medium ~~from a print media supply~~ along a paper path
4 ~~and over an apparatus structure positioned in the paper path, the apparatus~~
5 structure of a hard copy apparatus structure including a lower paper guide
6 including a reflective element and a non-reflective element, the lower paper guide
7 positioned subjacently to a transmissive sensor;

8 beaming transmissive light through ~~a first type of the~~ print medium;

9 impinging the transmissive light onto a surface reflective of the
10 transmissive light and a surface absorptive of the transmissive light;

11 recording a profile representative of light reflection and light absorption of
12 the print medium; and

13 storing said profile in a memory with an identifier associated with said ~~first~~
14 ~~type of~~ print medium.

1 6. (Currently Amended) The method as set forth in claim 5
2 further comprising:

3 beaming the transmissive light through a second type of print medium;

4 impinging the transmissive light onto a the surface reflective of the
5 transmissive light and a the surface absorptive of the transmissive light;

6 recording a profile representative of light reflection and light absorption of
7 the second type of print medium; and

8 storing said profile in a memory with an identifier associated with said
9 second type of print medium.

1 7. (Currently Amended) The method as set forth in claim 6
2 further comprising:

3 beaming the transmissive light through a third type of print medium;

4 impinging the transmissive light onto the surface reflective of the
5 transmissive light and the surface absorptive of the transmissive light;

6 recording a profile representative of light reflection and light absorption of
7 the third type of print medium; and
8 ~~wherein~~ referencing said memory ~~is used~~ as a look-up table for identifying
9 a the profile of the third print medium.

1 8. (Currently Amended) A method for determining a multi-pick
2 feed of cut sheet print media, the method comprising:
3 transporting a print medium ~~from a print media supply~~ along a paper path
4 ~~and over an apparatus structure positioned in the paper path, the~~ of a hard copy
5 apparatus structure including a lower paper guide including a reflective element
6 and a non-reflective element, the lower paper guide positioned subjacently to a
7 transmissive sensor;
8 beaming transmissive light through the print medium;
9 impinging the transmissive light onto the reflective element;
10 impinging the transmissive light onto the non-reflective element;
11 sensing a reflected light from the reflective element and the non-reflective
12 element;
13 recording data representative of light reflection and light absorption;
14 storing first data representative of media thickness and transmissivity of a
15 single sheet of a known print medium;
16 storing second data representative of media thickness and transmissivity
17 of at least two stacked sheets of a the known print medium;
18 recording third data representative of ~~current~~ the print medium thickness
19 and transmissivity ~~during transport of said current medium from a supply toward a~~
20 ~~printing zone~~; and
21 comparing said third data to said first and second data.

1 9. (Currently Amended) A print media sensor device, comprising:
2 a light emitter positioned in a linear transport region of a ~~print media~~
3 ~~transport paper~~ path, for directing a light beam across the ~~print media transport~~
4 paper path, the light beam having predetermined intensity and wavelength for
5 penetrating a sheet of print media in said ~~print media transport~~ paper path;

6 a reflective element and a non-reflective element mounted to an apparatus
7 structure including a lower paper guide positioned in the ~~print media transport~~
8 paper path, the reflective element and the non-reflective element aligned with the
9 light emitter; such that said light beam is received by the reflective element and
10 the non-reflective element after passing through the sheet of print media in said
11 ~~print media transport~~ paper path; and
12 a light detector positioned in the linear transport region of the ~~print media~~
13 ~~transport~~ paper path providing an output signal indicative of thickness and
14 transmissivity of the sheet of print media.

1 10. (Currently Amended) The device as set forth in claim 9
2 wherein said output signal further comprises a first level when no print media is
3 interrupting the light beam, a second output signal indicative of ~~a single~~ the sheet
4 of print media interrupting the light beam, and at least one other signal level
5 indicative of multiple sheets of print media interrupting the light beam.

1 11. (Currently Amended) The device as set forth in claim 9
2 wherein said output signal further comprises a first signal when no print media is
3 interrupting the light beam, a second signal when the sheet of print media is
4 interrupting the light beam over a reflective surface, and a third signal when the
5 sheet of print media is interrupting the light beam over an absorptive surface.

1 12. (Currently Amended) The device as set forth in claim 11
2 further comprising:
3 the light emitter mounted to a transport, the transport powered for
4 scanning said light beam across ~~a paper the print media transport path of said~~
5 ~~print media~~ the paper path wherein a the reflective element and ~~absorptive the~~
6 non-reflective element are mounted transverse to said ~~print media transport~~
7 paper path such that the sheet of print media passes between said light emitter
8 and said reflective element and absorptive element.

1 13. (Currently Amended) The device as set forth in claim 12
2 wherein the light emitter further comprises:

3 an LED optical emitter ~~mounted for projecting a light beam through the~~
4 ~~print media wherein the light beam has a predetermined intensity and wavelength~~
5 ~~for penetrating and being reflected back through at least two sheets of print~~
6 ~~media.~~

1 14. (Cancelled) A computer memory comprising:
2 computer code for recording data representative of print medium thickness
3 and transmissivity using an incident light source; and
4 computer code for comparing recorded data from said recording to
5 predetermined data representative of known print medium thickness and
6 transmissivity.